

Dental Exam Room UV Disinfection Package for Dental Offices

Instruction Manual

Thank you for your purchase of the Larson Electronics IND-LLP-UVC-KT.EV-R1-120V-0.75INeLEVATOR UV Disinfection Package. The IND-LLP-UVC-KT.EV-R1-120V-0.75IN includes one Corner Mount Elevator UVC Fixture, one UV Air Disinfection for Occupied Areas, and one Contact-less Device to help operate sanitation devices. The IND-LLP-UVC-KT.DDS-R1-120V includes everything needed to disinfect and keep a single dental patient room safe both during and after a visit. The indirect UV air disinfection fixture cleans the upper room air of occupied spaces while the germicidal UV sanitation light can then be used to thoroughly disinfect the room once it is empty again.

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IMPORTANT

READ CAREFULLY BEFORE INSTALLING THIS FIXTURE. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE. THE IND-AHC-TRF-2X2-UVC-R1-120V SERIES AND

IND-EV-SS-48-1L-UVC-V1-MS MUST BE WIRED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES. PROPER GROUNDING IS REQUIRED FOR SAFETY.

WE STRONGLY ENCOURAGE ONLY A LICENSED ELECTRICIAN INSTALL, OPERATE AND MAINTAIN THIS PRODUCT. IF YOU ARE NOT QUALIFIED OR UNFAMILIAR WITH ANY ASPECT OF THIS INSTRUCTION SHEET, CONSULT AN ELECTRICIAN. THERE ARE NO SERVICEABLE PARTS INSIDE.



WARNING: MAKE SURE POWER IS TURNED **OFF** BEFORE STARTING THE INSTALLATION OR PERFORMING ANY MAINTENANCE.

RISK OF FIRE/ELECTRIC SHOCK – DISCONNECT POWER AT BREAKER BEFORE INSTALLING OR SERVICING. RISK OF PERSONAL INJURY – FIXTURE MAY BECOME UNSTABLE OR DAMAGED IF NOT INSTALLED PROPERLY. RISK OF BURN – ALLOW FIXTURE TO COOL BEFORE SERVICING.

WARNING: ULTRAVIOLET LIGHT IS HARMFUL TO EYES AND SKIN. DO NOT STARE DIRECTLY INTO THE ULTRAVIOLET BEAM WITHOUT WEARING PROTECTIVE GEAR TO PROTECT EYES FROM LONG TERM DAMAGE. UNPLUG LAMP BEFORE SERVICING.

The Larson Electronics IND-EV-SS-48-1L-UVC-V1-MS Corner Mount UV Fluorescent Fixture provides UVC illumination at a 45° angle to the ground which is ideal for use in elevators. This 40-watt unit features one, 4-foot UV fluorescent lamp with shatter proof coating, housed in a 304 stainless steel housing. The luminaire caters to corner surface mounting, operates on 120-277V AC, 50/60 Hz, and is equipped with a motion sensor and automatic timer. For best results, combine 2-3 of these fixtures inside each elevator car.

Mounting

The IND-EV-SS-48-1L-UVC-V1-MS features a corner surface mounting system that allows the beam to project at a 45° towards the ground. Operators may use four L-bracket mounting taps (one at each corner) for secure installations. Combine 2-3 of these fixtures in each elevator car for best results. Power connections to the UV unit can be completed via two accessible, threaded wiring hubs (1/2" or 3/4").



Wiring

Before you begin connecting any wiring, be sure the supply power is turned off at the breaker. Complete connections between the supply wiring and the luminaire wiring per the diagram above using suitable connectors. Wiring from luminaire extends from the hub located at the side of the fixture. Be sure to follow local and national code when completing these connections. Once connections are completed, the fixture is ready to be powered on.

Lamp Replacement

NOTE: Do not touch bulb with bare hands. The oil in your skin will damage the lamp. Fingerprints will result in reduced performance and significantly reduce the lifespan of the lamp unless they are removed with alcohol.

To replace a burned out or broken bulb, first make sure the bulb you are replacing it with is of the same type and rating. Also, be sure power is off at the breaker. This fixture uses 2-pin T8 style fluorescent bulbs. Remove the old bulb by rotating 1/4 turn to free the bulb from it's receptacles. Install the new bulb by sliding the pins at the ends of the lamp into the open slots in the bulb receptacles and rotate 1/4 turn to secure it in place. Restore power.

Motion Sensor

The IND-EV-SS-48-1L-UVC-V1-MS is equipped with a microwave motion sensor for an additional layer of safety while the unit is in use. Due to the potential harm UVC light can cause to a person's skin and vision, it is unsafe to be near the light while it is powered on. To avoid accidental exposure to the UV light produced by this sanitation cart, it is equipped with a 360° motion sensor. When the motion sensor detects movement inside the elevator car, it will power off the light. When no motion has been detected for at least 5 minutes, the unit will power back on. This component is capable of sensing through thin materials (it does not need direct line of sight) and effectively covers 12' x 12' areas. The internal, embedded motion sensor is not visible from the outside of the unit.

Timer

The IND-EV-SS-48-1L-UVC-V1-MS features a digital timer that shuts the unit off after five minutes of runtime. This saves energy by preventing the fixture from running continuously after disinfection has taken place.

The IND-AHC-TRF-2X2-UVC-R1-120V Industrial UV Air Purifier from Larson Electronics actively disinfects the surrounding air in occupied areas without noise. This unit uses three T8 UVC lamps that provide 15.9 watts of total UV output during UV treatment. Designed for 2x2 troffer mount installations on ceilings, the UV air purifier operates on 120V AC and is protected by 304 stainless steel enclosure.

WIRING

Standard pigtail(flying leads) wiring

We strongly encourage a licensed electrician install this product, in all locations especially in outdoor areas where weatherproofing may be required. Universal voltage driver permits operation at 120V AC.

Warning: Check product label for correct input voltage!

Attach supply line wires to the appropriate light fixture wires as shown in the diagram →

Secure each pair of wires according to the diagram. Utilize a junction box or similar device and take precautionary steps for weatherproofing all connections if installed in a location where water may come in contact with the unit. Ensure the unit is properly grounded and that wiring is done according to all local and national electrical/building codes.



MOUNTING

The IND-AHC-TRF-2X2-UVC-R1-120V is compatible with 2x2 troffer mount installations on ceilings. We offer models with surface mount features for installations on ceilings without tiles or grids.

OPERATION

Surrounding "dirty" air is drawn into the UV purifier via filters. The "dirty" air passes through the UV sanitation chamber where it is treated with UVC light using the three T8 fluorescent lamps. The disinfection process kills up to 99.9% of viruses, bacteria, mold, spores and other harmful microbes. Clean sanitized air exits the chamber through a louvered exhaust panel and is released back into the environment. This low-maintenance air disinfection process is continuous and quiet.

MAINTENANCE

Caution: To avoid personal injury, disconnect power to the light and allow the unit to cool down before performing maintenance.

Warning: No user serviceable parts inside of fixture. Risk of electric shock. Removal of the lens will void the warranty.

1. Perform visual, mechanical and electrical inspections on a regular basis. We recommend routine checks to be made on a yearly basis. Frequency of use and environment should determine this. It is recommended to follow an Electrical Preventive Maintenance Program as described in NFPA 70B: Recommended practice for Electrical Equipment.
2. The lens should be cleaned periodically as needed to ensure continued photometric performance. Clean the lens with a damp, non-abrasive, lint-free cloth. If not sufficient, use mild soap or a liquid cleaner.
3. Inspect the cooling fins on the luminaire to ensure that they are free of any obstructions or contamination (i.e. excessive dust build-up). Clean with a non-abrasive cloth if needed.
4. Do not operate if the lens is cracked or damaged. All fasteners should be properly seated.

USE AND CARE

Unauthorized modification may impair the function and/or safety of this device and could affect the life of the equipment. Always check for damaged or worn out parts before using the device. Store it in a secure place out of the reach of children when not in use. Inspect for good working condition prior to storage and before re-use.

REPLACEMENT PARTS

The IND-LLP-UVC-KT.EV-R1-120V-0.75IN is designed to provide years of reliable performance. Should the need for replacement parts arise, please contact Larson Electronics.

THESE INSTRUCTIONS MAY NOT COVER ALL DETAILS OR VARIATIONS OF THIS PRODUCT FOR YOUR EQUIPMENT OR INSTALLATION REQUIREMENTS. SHOULD FURTHER INFORMATION NOT COVERED BY THESE INSTRUCTIONS BE REQUIRED, PLEASE CONTACT LARSON ELECTRONICS BY EMAIL AT SALES@LARSONELECTRONICS.COM OR BY PHONE AT 1-800-369-6671 FOR FURTHER ASSISTANCE.

PLEASE VISIT LARSONELECTRONICS.COM FOR **WARRANTY** AND **RETURN** INFORMATION.

Ultraviolet Radiation Safety

WARNING: Do not attempt operation until you are familiar with all warnings, precautions, and procedures outlined within this instruction sheet.

OPERATION PRECAUTIONS

- **UV LIGHT WARNING:** UV-C light can cause temporary or permanent loss of vision, and temporary acute redness or ulceration (mild to severe sunburn) to exposed skin. To prevent exposure, do not operate the device in any application that allows UV-C light to be visible during operation.
- **UV LIGHT CAUTION:** UV light may degrade plastic and rubber components after longterm exposure.
- Currently, there are no work place related rules and regulations that are set by OSHA (Occupational Safety and Health Association) in regard to UVC environmental health and safety.
- **NEVER LOOK DIRECTLY AT THE BULB OR DISINFECTING TARGET ZONE**

OPERATION SAFETY

- People and animals are forbidden from being exposed to the light output of this light for extended periods of time. Long term exposure will cause damage to the eyes and skin.
- This product produces UV radiation. Anything in front of the unit will be exposed to UV radiation. Operators positioning the light while not illuminated will not be exposed. Radiation is only emitted while the light is turned on. Radiation will not linger in the environment when the lamps have been powered off. Safety equipment is only required when the device is in-use.
- Wear eye protective gear when operating the equipment. Polycarbonate safety glasses at minimum are required during all operations. Full frontal polycarbonate or UV-preventative face masks are recommended.
- Wear long sleeves and gloves when operating the equipment. Personal protective gear is required for long term exposure.

OPERATION SAFETY STRATEGIES

- Instruct service personnel to never look directly at UV-C light without adequate eye protection.
- Make it a policy to never enter areas being disinfected with UV lighting systems without powering the system down first. Methods of powering down depends on the options of the device purchased and may include unplugging the light source, operating the power switch to power the lamps off, or turning the system off via a wireless remote control or wireless application.
- Place warning labels near all openings/entrances to areas being disinfected with UV lighting systems. When possible, lock access doors to prevent unexpected guests from entering the area.
- Close blinds/curtains of areas being disinfected with UV lighting systems if available. If not available, block off direct access to windows/doorways to prevent access to the area. If you cannot fully block off all access (hallways with visible windows, etc) place exterior warnings in areas prior to the exposed windows (hall pedestals, banners, posters) explaining what areas are being disinfected and to not look into the room.
- Educate non service personnel about the intended operations for UV disinfecting and what signage will be posted. Instruct non service personnel to never look directly at UV-C light.
- Instruct service personnel to always wear personal protective gear (as outlined above) when they must operate in an area that has UV-C exposure, for short or long term work.

These safety precautions will help ensure service personnel are protected from accidental exposure while maintaining the effectiveness of UV-C to eradicate biological contaminants.

In the event of UV exposure, the following actions are recommended.

- See an ophthalmologist if eye damage is suspected.
- Treat skin lesions immediately.
- For severe skin lesions, seek local medical treatment and follow their recommendations for treatment.
- Follow your organization's incident reporting procedure. These often require documentation of the date and time of the incident, persons involved, equipment involved and type of injury.

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